

REMARKS

The rejections of:

Claims 1-5 and 18-20 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over US 5,380,614 (Totsuka), “as evidenced by applicants’ admissions at page 8, lines 3-10, and page 14, line 26, to page 15, line 3 of the instant specification (applicants’ admission I)”;

Claim 6 under 35 U.S.C. § 103(a) as unpatentable over Totsuka et al, as evidenced by applicants’ admission I, combined with US 5,340,677 (Baba et al);

Claims 1-5 and 18-20 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over JP 03-116054 (JP ‘054)¹, as evidenced by Totsuka et al and applicants’ admission I; and

Claim 6 under 35 U.S.C. § 103(a) as unpatentable over JP ‘059 [sic, JP ‘054], as evidenced by Totsuka et al and applicants’ admission I, combined with Baba et al, are respectfully traversed.

Totsuka et al discloses a positive chargeable color toner wherein a positive chargeable compound is fixed to the surfaces of coloring particles. The positive chargeable compound may be, *inter alia*, a particular alumina particle treated with a silane coupling agent (column 2, lines 31-45).

JP ‘054 discloses a negatively chargeable toner including toner particles which have been surface-treated with negatively chargeable silica particles and positively chargeable silica which has been mixed with the toner particles (page 2, paragraph 2).

The Examiner finds that the toners of Totsuka et al and JP ‘054 satisfy the relationship recited in Claim 1:

$$(\text{PSi2p (1 min)} - \text{PSi2p (30 min)}) \leq 0.8 \text{ eV}$$

¹ Reference to JP ‘054 is to the English translation thereof.

In reply, the state of the external additive present on the surface of the toner of the present invention is different from the states of the external additives in Totsuka et al and JP '054, as can be clearly understood by comparing the external additive mixing conditions described in the Examples herein, with those described in these references, as now discussed.

In a first external additive mixing process in Totsuka et al, and to the extent relevant here, a particulate alumina, which has a large particle diameter, is mixed with toner particles using a hybridizer, i.e., Nara hybridizer system, instead of a HENSCHER MIXER. When such a mixing method is used, the surface of the toner particles is covered with the particulate alumina before another external additive (i.e., silica) is fixed on the surface of the toner particles. Since particulate alumina has low fluidity, the resultant toner particles have seriously low fluidity. Therefore, it is difficult to uniformly mix a silica with such toner particles. In addition, at the surface portions of the toner particles near the alumina particle, sufficient energy does not act on the silica particle to adhere the particle to the surface portions.

In the mixing method in JP '054, in which the external additives, i.e., a negatively charged silica and a positively charged silica, are mixed with toner particles to adhere the external additives to the surface of the toner particles, crude toner particles are mixed with negatively charged silica and the mixture is subjected to a pulverization treatment using a jet mill, wherein the silica is adhered to the surface of the toner particles at the same time. The negatively charged silica can be firmly fixed on the surface of the toner particles, as described therein. A positively charged silica is then mixed with the thus prepared toner particles.

Since a negatively charged silica and a positively charged silica are mixed in JP '054, the toner of JP '054 is different from the toner of the present invention.

The Examiner finds that when toner particles and an external additive are in a mixing state, the relationship $(\text{Psi}2\text{p}(1\text{min}) - \text{Psi}2\text{p}(30\text{min})) \leq 0.8 \text{ eV}$ is satisfied, but the relationship

is not satisfied when they are not in a mixing state. However, this relationship cannot be satisfied when mixing is performed under normal mixing conditions, but is satisfied when mixing is performed under the conditions described in that Examples herein. The relationship is not satisfied when mixing is performed under the conditions described in JP '054 due to the use of a jet mill. Toner particles and external additive particles move at the same speed in a jet mill. Therefore, the probability that an external additive particle contacts a toner particle is very low. Therefore, uniform mixing cannot be performed. When a toner particle collides against a collision plate of a jet mill, a force acts on the toner particle sufficient to fix an external additive particle to the toner particle. However, the force is also sufficient to pulverize the toner particle. Therefore, it is difficult to uniformly fix external additives to toner articles. In addition, since specific gravities and particle diameters of external additives are different from those of toner articles, external additive particles, which collide against the collision plate but are not fixed on the surface of toner particles, are separated from the jet mill.

Therefore, the relationship of the present claims cannot be satisfied under the mixing conditions described in JP '054.

Note that the present claims now require that the various values for the above-recited relationship is obtained when using a particular mixer. As can be confirmed from the website for the company Willy A. Bachofen AG, i.e., <http://www.wab.ch/ie/e/start.htm>, the mixer recited in the present claims was introduced worldwide in the early 1960s, and is still being sold. The TURBULA SHAKER MIXER is used for the homogeneous mixing of powdery substances with differing specific weights and particle sizes. The product is mixed in its own closed container. Mixing dry-wet and wet-wet are also possible. Thus, it is respectfully submitted that the scope of the claims as above-amended is definite, and the claims are fully enabled.

To the extent the Examiner relies on the disclosure at page 8, lines 3-10 of the specification herein as part of so-called applicants' admission I, applicants respectfully traverse the use of this disclosure. It is not proper or reasonable for the Examiner to equate qualitative expressions of results, such as "**good** images without causing a background fouling problem and a toner scattering problem" (emphasis added) in the specification herein, and similar expressions, with supporting data, in the prior art, to find that the prior art also satisfies the above-recited relationship in Claim 1.

Regarding the Examiner's findings on Claims 4, 5 and 18-20, the recitations therein are **not** merely statements of intended use. Rather, as recited in Claim 4, when the toner is used as recited, "the replenished toner composition has substantially a same charge quantity as that of the toner composition which previously exists in the mixing section when the replenished toner composition and the previously existing toner composition reach the regulating member." In other words, this limitation is a functional limitation, not merely a statement of intended use.

Baba et al has been applied for its disclosure of a coating thickness. However, Baba et al does not remedy the above-discussed deficiencies in each of Totsuka et al and JP '054.

For all the above reasons, it is respectfully requested that the rejections over prior art be withdrawn.

The rejection of Claims 1-6 and 18-20 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, is respectfully traversed. Indeed, the rejection would now appear to be moot in view of the above-discussed amendment. Accordingly, it is respectfully requested that the rejection be withdrawn.

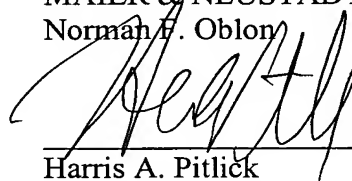
Regarding paragraph 5 of the Office Action, Applicants respectfully submit that the List of Related Cases filed September 23, 2004 was submitted in a proper manner, since Mr. Nicholas P. Godici, former Commissioner for Patents, stated on August 4, 2004 that copies of

cited pending applications are no longer required. Applicants have satisfied their duty of disclosure by providing this listing to the Examiner. The OG Notice of October 19, 2004 (copy enclosed) does not state that its effects are not retroactive.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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United States Patent and Trademark Office OG Notices: 19 October 2004

**Waiver of the Copy Requirement in 37 CFR 1.98 for
Cited Pending U.S. Patent Applications**

37 CFR 1.98 requires that for each cited pending U.S. patent application, an information disclosure statement (IDS) include a legible copy of the application specification, including the claims, and any drawing of the application, or that portion of the application which caused it to be listed, including any claims, directed to that portion. See 37 CFR 1.98(a)(2)(iii).

The United States Patent and Trademark Office (USPTO) has been scanning newly filed patent applications and the existing inventory of patent applications into USPTO's Image File Wrapper (IFW) system since June of 2003. See Notification of United States Patent and Trademark Office Patent Application Records Being Stored and Processed in Electronic Form, 1271 Off. Gaz. Pat. Office 100 (June 17, 2003). Applications stored in the IFW system may be viewed by examiners on their desktop computers. Consequently, there is no longer a need to require a copy of the specification, including claims, and drawings of a U.S. patent application (or portion of the application) listed on an IDS when the cited application is stored in the USPTO's IFW system, and can be readily viewed by examiners, applicants and members of the public.

Therefore, the requirement in 37 CFR 1.98(a)(2)(iii) for a legible copy of the specification, including the claims, and drawings of each cited pending U.S. patent application (or portion of the application which caused it to be listed) is sua sponte waived where the cited pending application is stored in the USPTO's IFW system. See 37 CFR 1.183. This waiver is effective immediately.

Applications filed under 35 U.S.C. 111 on or after June 30, 2003, and international applications that have entered the national stage on or after June 30, 2003, have been or are being scanned into the USPTO's IFW system. When citing to a pending application filed under 35 U.S.C. 111 before June 30, 2003, or that entered the national stage before June 30, 2003, the applicant may check the private Patent Application Information Retrieval (PAIR) System to see whether the application is stored in the USPTO's IFW system in order to determine if a copy of the application (or portion of the application) is required to be provided with an IDS. The private PAIR System can be accessed over the Office's Internet Web site (www.uspto.gov).

When citing to a pending U.S. patent application that has been published under 35 U.S.C. 122(b) (eighteen-month publication), the USPTO prefers that the citation be to the patent application publication (by publication number) rather than to the application itself (by application number).

This waiver is limited to the specification, including the claims, and drawings in the U.S. application (or portion of the

application). If material other than the specification, including the claims, and drawings in the file of a U.S. patent application is being cited in an IDS, the IDS must contain a legible copy of such material. See 37 CFR 1.98(a)(1)(iv).

Inquiries concerning this notice may be directed to Jeanne M. Clark, Senior Legal Advisor, Office of Patent Legal Administration, at (703) 306-5603.

KUNIN

for

Policy

STEPHEN G.

Deputy Commissioner

Patent Examination